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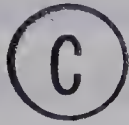




THE UNIVERSITY OF ALBERTA

A STUDY TO DETERMINE THE RELATIONSHIP  
OF ANXIETY TO IRRATIONAL IDEAS

BY



LYMAN MURDOCK TAFT

A THESIS

SUBMITTED TO THE FACULTY OF GRADUATE STUDIES  
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DEPARTMENT OF EDUCATIONAL PSYCHOLOGY

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UNIVERSITY OF ALBERTA

FACULTY OF GRADUATE STUDIES

The undersigned certify that they have read, and recommend to the Faculty of Graduate Studies for acceptance, a thesis entitled "A Study to Determine the Relationship of Anxiety to Irrational Ideas," submitted by Lyman Murdock Taft, in partial fulfilment of the requirements for the degree of Master of Education.

Date: October, 1968



## ABSTRACT

This study was designed to investigate a hypothesized covariance of irrationality and anxiety. Irrationality was operationally defined as the holding of the types of irrational ideas enumerated by Ellis (1963) which are integral to the Irrational Ideas Inventory constructed by Zingle (1965).

Anxiety was defined in terms of six paper-and-pencil anxiety measures. Specifically, The Maudsley Personality Inventory, the Revised Taylor Manifest Anxiety Scale and the Willoughby Personality Schedule. As well, separate scores were tabulated and analyzed for the following subscales: The Neuroticism Scale of the Maudsley; the Emotional Sensitivity and Unadaptive Anxiety Reactions Scales of the Willoughby. From an initial sample of 238 high school students, 62 S's were designated as a high irrational belief group and 66 S's were designated as a low irrational belief group. The high and low groupings represented (1) all male S's with the 25 highest and 25 lowest Irrational Ideas Inventory scores respectively, and (2) all female S's with the 25 highest and 25 lowest Irrational Ideas Inventory scores respectively.

For all six anxiety indices separate analyses of variance were performed upon the scores obtained by the high and low irrational belief groups according sex within groups.



The results revealed that the high irrational belief group in every instance exceeded the low irrational belief group in level of anxiety ( $p < .001$ ). In one instance sex accounted for a significant ( $p < .001$ ) difference inside the high and low groupings. This difference was found only on the Emotional Sensitivity Scale of the Willoughby Personality Schedule and was in favor of females.

Suggestions were made toward the research implications and the wider application of Ellis' therapy in countering not only irrationality but anxiety as well.



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## CHAPTER I

### INTRODUCTION AND STATEMENT OF THE PROBLEM

#### INTRODUCTION

A decade ago, commentaries by vocal educators (e.g. Conant, 1959; Freidenberg, 1959; Neatby, 1953) repeatedly stressed the types of school programs which would serve and would not serve the student learner. It could be argued that governments, school trustees, and administrators have risen to the challenge in the ten years since those reports were first published. In Canada, the Federal Vocational and Technical Agreement Act permitted the federal government to infuse massive sums into the upgrading of long neglected facets of secondary education. Provincial departments of education and local trustees responded to the challenge. Archaic programs, obsolete facilities and inadequate organization have given way in almost every urban setting. In their place, new programs, facilities, practices and techniques are being employed to more nearly approximate the aim of supplying an education for every student in line with his or her potential.

Along with this massive reorientation and rededication of the school system has come a renewed effort toward understanding the individual student. For, despite the electronic aids, the diversity of program and better prepared staff, a sizeable group of the nation's youth profit only marginally from the school experience.

Educational psychologists have begun to look at those aspects of personality and behavior which promote student success and those aspects



of personality and behavior which defeat the learner. The present study examines the role that student anxiety and illogical or irrational belief systems play in preventing optimal individual learning.

### THE PROBLEM

Zingle (1965) prepared an instrument to measure the extent to which individuals give currency to illogical or irrational ideas. The theory underlying the instrument was derived from the work of Ellis (1963). Essentially, what Ellis suggested was that individuals covertly rehearse illogical or irrational statements which in turn govern their overt acts. The "irrational ideas" behind these self-statements fall into eleven major categories under which most such defeating notions may be subsumed. (Ellis, 1963, p. 60).

"Irrationality" as measured by Zingle's instrument, the Irrational Ideas Inventory (I-I Inventory), was subsequently found to be related to underachievement. (Zingle, 1965). Again in 1967, Conklin using the I.I. Inventory in a different experimental design replicated Zingle's earlier findings. Thus, lack of achievement or lack of learner productivity has been linked to irrationality. Studies also repeatedly report that higher anxiety is a correlate of underachievement (e.g. Frost, 1965; Flynn and Morgan, 1966; Diamond, 1967). That underachievers are more apt to be high anxious as a finding is interesting. Unfortunately, it is not of immediate value in helping the counsellor, the teacher or the student in overcoming the anxiety. However, if it were determined



that the possession of irrational ideas was causal of or at least coincident with a significant amount of anxiety, then techniques are available to help the student.

That is, Ellis' rational therapy approach to counselling could be employed extensively to not only reduce the holding of irrational ideas, but, as well, the attendant anxiety. In addition, "guesswork diagnosis" could be controlled through the use of the I-I Inventory. Also, the progress of therapy could be evaluated and re-evaluated through administration of parallel forms of the test.

Theoretically, the anticipation of such a relationship has abundant support in the work of Eysenck (1958; 1959) and Wolpe (1958). Wolpe, for instance, utilizes an anxiety measure, The Willoughby Schedule, with adult incapacitated clients in a manner as described above. His whole therapy is based on very specific techniques for lessening anxiety. However, his methods (i.e. hypnotism, carbon dioxide inhalation) are not now readily or even ethically available to the high school counsellor. Thus, the cognitive-verbal approach embodied in Ellis' therapy offers a much wider application well within the scope of school personnel.

Emerging from this discussion, then, is the underlying hypothesis of the study that: High school students holding a high number of irrational beliefs will demonstrate more anxiety than will high school students holding few irrational beliefs.



## CHAPTER II

### A REVIEW OF RELATED THEORY AND RESEARCH

#### Introduction

The present study is concerned with the relationship of irrational or illogical beliefs to anxiety. Specifically, it is concerned with the role that Ellis' conception of irrational ideas plays in creating disturbance (i.e. anxiety) within students. Thus, Ellis' theory and therapy are considered as well as the literature relevant to anxiety and the function of cognition in producing anxiety.

#### Irrational Idea Theory

Ellis terms his theory the "rational-emotive approach to psychotherapy." The basic tenet of his system is that human emotion is primarily the result of thought. Most simply, he regards bias, prejudice, and judgmental acts as the product of controlled thinking. Moreover, the person who exhibits such emotions as "love" or "elation" according to Ellis is most probably saying to himself overtly or covertly, some sentence such as "this is good." Similarly, negative emotions such as disgust or depression are caused by verbally based thought such as "this is terrible." This conscious or unconscious use of "internalized sentences" is the basis of emotion. (Ellis, 1963, p. 60).

Drawing upon the work of Fromm (1941), Horney (1939) and others (e.g. Reik, 1948), Ellis' attempts to show that illogical social teachings are central to neurosis. Man by giving currency to irrational, but socially approved ideas, creates personal emotional disturbance.



## Rational-Emotive Therapy

The aberrations of an emotional genre that individuals display are therefore subject to change through the use of a form of therapy which counters these illogical ideas or beliefs. The reasoning is that if human thinking or "self-verbalization" results in unadaptive emotions, they may also be employed to cause adaptive social facilitating emotions. Ellis, in his own words, says that:

It is the task of the psychotherapist to work with individuals who are needlessly unhappy and troubled, or who are weighted down with intense anxiety or hostility, and to show them (a) that their difficulties largely result from distorted perception and illogical thinking, and (b) that there is a relatively simple, though work-requiring method of reordering their perceptions and reorganizing their thinking so as to remove the basic cause of their difficulties. (p. 36)

The "work requiring method" of change to which Ellis alludes is the active participation of the individual in a process of substitution of rational ideas for irrational ideas. A consideration of his A-B-C theory of personality and emotion will clarify the issue.

Ellis refers to the "internalized sentence" as the "B" step in the A-B-C sequence of behavior. The assumption behind the theory is that a stimulus "A" rarely causes a particular emotional reaction "C" in an individual. Rather it is usually "B" (the socially conditioned interpretation that the individual places upon "A") that determines the reaction. The task of the rational-emotive therapist is to (1) acquaint the client with the irrationality of his belief system and (2) provide logical alternative ideas for immediate reality testing. As Ellis succinctly states it, "the therapist serves as a frank counter-propagandist" (1963,



p. 95). For example, if a client believes that it is necessary to be loved by everyone; he is forcefully persuaded to operate anew from the idea that it is pleasant to be approved, but not necessary.

### The Major Irrational Ideas

There are numerous illogical internalized statements which Ellis suggests are widely perpetuated and common in our culture. It is, thus, most characteristic to find these "self-defeating" universal sentences in a client requesting therapy. The eleven most inclusive irrational ideas Ellis (1963) lists as:

1. The idea that it is a dire necessity for an adult human being to be loved or approved by virtually every significant other person in his community.
2. The idea that one should be thoroughly competent, adequate, and achieving in all possible respects if one is to consider oneself worthwhile.
3. The idea that certain people are bad, wicked, or villainous and that they should be severely blamed and punished for their villainy.
4. The idea that it is awful and catastrophic when things are not the way one would very much like them to be.
5. The idea that human unhappiness is externally caused and that people have little or no ability to control their sorrows and disturbances.
6. The idea that if something is or may be dangerous or fearsome one should be terribly concerned about it and should keep dwelling on the possibility of its occurring.
7. The idea that it is easier to avoid than to face certain life difficulties and self-responsibilities.
8. The idea that one should be dependent on others and needs someone stronger than oneself on whom to rely.



9. The idea that one's past history is an all-important determiner of one's present behavior and that because something once strongly affected one's life, it should indefinitely have a similar effect.
10. The idea that one should become quite upset over other people's problems and disturbances.
11. The idea that there is invariably a right, precise and perfect solution to human problems and that it is catastrophic if this perfect solution is not found. (pp. 60-68)

### Some Current Views of Anxiety

That anxiety accompanies irrational beliefs is the central prediction of the current study. And while, considerable theoretical support is available, little specific empirical evidence has been accrued to date. There have been many and varied studies dealing with anxiety. The accumulated research relates to many complex variables which effect anxiety (e.g. see the comprehensive review of Sarason, 1960).

Sarason points out that an enduring concern of anxiety researchers has to do with the timing of measurement. Anxiety is a fleeting "mercurial" quantity and, therefore, defies easy examination and hence classification.

However, Levitt (1967) categorizes most current views of anxiety according to (1) those which deal with it as a trait, (2) those which treat it as a behavioral response and (3) those which take it to be a transient state of emotional arousal. Inherent, even so, in all of these disparate views is the concept of individual differences in anxiety level. Thus, the highly anxiety prone individual may conceivably react more intensely to stressful stimulation. Also, Levitt points out



individual personal experiences appear related to the varied reaction potential. Therefore, the "personal experience" obtained from a therapy session could, in theory, vary the individual's reaction. Such a notion, of course, is compatible with Ellis' theory and therapy.

Relevant also to Ellis' position is the contention of Whiting and Child (1953) that all or most anxiety is "socialization anxiety." Such socialization anxiety arises, they suggest, from the pressures an individual feels toward channeling his energies or impulses into socially approved outlets.

Thorne (1967) in a very similar view postulates that a person cannot be considered apart from his society. What he terms "integrative psychology" is the view that man has social feelings. This social perception, Thorne feels, is related to man's ability to produce a change in social problems or situations. As such Thorne's system comes conceptually close to that of Ellis. For, Ellis' position is that the individual must counter socially sanctioned irrational ideas in order to produce change.

#### Cognitive Control of Behavior

Thorne's integrative psychology is also based on the postulate that the conscious self-awareness of man enables him to be highly integrative and deliberate in his actions. Accordingly, for Thorne as for Ellis, the highest form of integration (i.e. national-deliberate or inventive-creative behavior) is consciously controlled. Again the compatibility of Thorne's view with Ellis' position is evident. Ellis most



certainly states that an individual can control his thought patterns.

The two theorists considered above do not stand alone, for others, (Festinger, 1957; Luria, 1961; Rokeach, 1960; Vinake, 1960; Goldstein, 1960) openly concur. The two most fundamental hypotheses of Festinger's theory of cognitive dissonance relate intimately to Ellis' view.

Festinger states:

1. The existence of dissonance, being psychologically uncomfortable, will motivate a person to try to reduce the dissonance and achieve consonance.
2. When dissonance is present, the person will try to reduce it and in addition will actively avoid situations likely to increase the dissonance. (p. 3)

Essentially, what Festinger has proposed is that motivation affects cognitions (e.g. knowledge, opinion, or belief about the environment). An individual may explain away or rationalize any inconsistency. For in Festinger's model, inconsistency creates dissonance which the individual seeks to avoid because of "psychological discomfort." The discomfort could quite logically be seen in terms of emotional arousal (i.e. anxiety). Moreover, as in Ellis' proposal, the individual upon confrontation with an anxiety producing environment resorts to an irrational belief for relief. This association of irrational beliefs with anxiety has explanatory significance for the moment of confrontation. What is not explained is how the anxiety is sustained. However, the prediction tested in this study and Ellis' contention is that the sustaining of the emotional arousal or anxiety is due to repeated ideas of the "internalized sentence" form. These affect the individual's perceptions, attitudes and overt behavior.



A related theory is Rokeach's (1960) dogmatism concept which like Festinger's dissonance concept carries a backlog of validation studies. High dogmatics cling to simple, "often erroneous" beliefs in the face of contradictory evidence. Rokeach (p. 364) also reports considerable anxiety accompanies the "closedmindedness" of the high dogmatic person. The underlying implication appears to be that individuals control their own thinking.

Psychologists in the Soviet Union (e.g. Luria, 1961; Luria and Yudovich, 1959; Liublinskaya, 1957) building upon the pioneer work of Pavlov contend that thinking becomes increasingly the product of self-stimulation with age. The idea is that a "stimulus appearance" activates a nervous activity in which abstraction and the generalization of innumerable signals are possible. Thinking is the result. Thought, in turn, becomes "the highest regulator of human behavior" (Pavlov, cited in Simon, 1957, p. 20). This, again, supports Ellis' theory and his therapeutic approach of effecting change by altering ideas.

In the West, the work of Goldstein (1960) and of Vinake (1960) is corroborative, as well. Goldstein assumes that thinking may be instigated by perceptions, concepts, feelings, thoughts and ideas. Likewise, Vinake theorizes that all thinking is goal-relating or wish-fulfilling behavior or a compound of both.

#### Research Relating Irrationality and Anxiety

Rychlak and Lerner (1965) studied the relationship of anxiety level to unwarranted expectation of success. High anxious Ss were found



to be far more expectant of success upon one reinforcement than low anxious Ss. This "generalized expectancy" characteristic of the Rychlak and Lerner study appears to parallel the notion of irrationality. In particular, it seems close to Ellis' Irrational Idea Number II: "that one must be thoroughly competent, adequate and achieving in all possible respects if one is to consider oneself worthwhile."

Rather similar results were obtained by Reidel (1965) who employed Ss dichotomized on the basis of anxiety in a psychophysical task. His Ss were called upon to make judgments regarding the length of lines in 195 sets of such lines. High anxious Ss were found to make more "doubtful" judgments ( $p \leq .01$ ) than did the low anxious Ss. His conclusion was that the high anxiety group preferred not to risk error regardless of the insignificance of the task. Such a conclusion again suggests that the Ss had ideas like Irrational Idea Number II.

Other studies (Feather and Saville, 1967; Flynn and Morgan, 1966; Diamond, 1967) reflect similar performance disparity in favor of low anxious subjects in such tasks as following programmed instruction and conventional achievement tests. In such tasks, performance is related to judgment and judgment has repeatedly been found to be impaired by anxiety. The Reidel study cited previously illustrates the fact that judgment deteriorates as anxiety rises. Pribyl and Walker (1965) also report an interactional affect of anxiety, social situation and sets of stimuli upon judgment. This later finding, in particular, is most congruent with Ellis' position in regard to the social origin of ideas and/



or emotions. Fitzgerald (1966) reported anxiety to be negatively correlated with "openness to experience." Given the "closedmindedness" postulated for the high irrational individual such a finding seems supportive of Ellis.

Highly relevant to the present study is research reported by Lafferty (1963). Lafferty, in a study of fifth grade boys and girls in the school classroom, examined the development of beliefs and values that children hold without questioning. He contends that the school influences the child's belief system more than the home. Quite simply, he argues, the child spends most of his time at school. He refers to these values and ideas as self-concepts. In Lafferty's view the individual merely accepts these ideas and does not try to explain them to himself. This position relates closely to the Ellis' theory concerning the source of irrational ideas. Lafferty concluded that the greater the extent of irrational (unquestioning) beliefs, the greater the extent of avoidant behavior. Avoidant behavior was defined as any behavior which led a child away from a social goal. In Lafferty's study this was evaluated in terms of low school achievement as determined by a standardized instrument.

Lafferty found that underachievers:

1. felt they could simply improve by worrying more about school.
2. are constantly striving for the goal of having everyone approve of them all the time for everything.
3. seem convinced that they cannot, by their own efforts, alter the course of a failing experience. (p. 45)



These findings appear highly congruent with Ellis' assumption that human beings usually sustain emotional arousal or anxiety as a result of irrational and illogical thinking.

#### HYPOTHESES

The previous consideration of theory and research suggests the following hypotheses:

1. High school students who score high on the Irrational Ideas Inventory will score higher on the Neuroticism Scale of the Maudsley Personality Inventory than will high school students who score low on the Irrational Ideas Inventory.
2. High school students who score high on the Irrational Ideas Inventory will score higher on the Total Maudsley Personality Inventory than will high school students who score low on the Irrational Ideas Inventory.
3. High school students who score high on the Irrational Ideas Inventory will score higher on the Revised Form of the Taylor Manifest Anxiety Scale than will high school students who score low on the Irrational Ideas Inventory.
4. High school students who score high on the Irrational Ideas Inventory will score higher on the Emotional Sensitivity Scale of the Willoughby Personality Schedule than will high school students who score low on the Irrational Ideas Inventory.



5. High school students who score high on the Irrational Ideas Inventory will score higher on the Unadaptive Anxiety Reactions Scale of the Willoughby Personality Schedule than will high school students who score low on the Irrational Ideas Inventory.
6. High school students who score high on the Irrational Ideas Inventory will score higher on the Total Willoughby Personality Schedule than will high school students who score low on the Irrational Ideas Inventory.



## CHAPTER III

### DESIGN AND PROCEDURE

#### The Sample

The sample was drawn from Edmonton Public Composite High Schools. Schools and classes were so chosen as to obtain subjects representative of a wide range of school achievement and a variety of socio-economic background. The listing below provides the specific details. In all, 238 students participated.

	COMPOSITE HIGH SCHOOL	PARTICIPATING CLASS
1.	Harry Ainlay	Sociology 20
2.	McNally	Psychology 20
3.	Ross Sheppard	Sociology 20
4.	Strathcona	Psychology 20

#### The Procedure

All 238 students were administered the Irrational Ideas Inventory. The inventories were then scored and divided into two groups in accordance with the sex of the subject. From these groupings the following were selected:

1. all male Ss receiving one of the 25 highest scores.
2. all female Ss receiving one of the 25 highest scores.
3. all male Ss receiving one of the 25 lowest scores.
4. all female Ss receiving one of the 25 lowest scores.

Because of the "tying" of subjects' scores in all categories this selection procedure yielded an N of 128 for further testing.



All 128 of these Ss were subsequently administered the following three anxiety measures: (1) The Maudsley Personality Inventory, (2) The Revised Taylor Manifest Anxiety Scale and (3) the Willoughby Personality Schedule. The distribution of the final 128 participating subjects according to school and sex is depicted in Table I.

TABLE I  
DISTRIBUTION OF SUBJECTS  
BY SCHOOL AND SEX

COMPOSITE SCHOOLS	TOTAL SUBJECTS	HIGH IRRATIONAL GROUPS			LOW IRRATIONAL GROUPS		
		Male	Female	Total	Male	Female	Total
Harry Ainlay	31	6	7	13	10	8	18
McNally	19	5	6	11	5	3	8
Ross Sheppard	29	10	5	15	6	8	14
Strathcona	49	8	15	23	11	15	26
TOTALS	128	29	33	62	32	34	66

#### INSTRUMENTS

##### The Irrational Ideas Inventory

The Irrational Ideas Inventory (I-I Inventory) developed by Zingle (1965) was used in the study to measure "irrationality." The test contains 122 statements related to Ellis' eleven irrational ideas. Table II shows the number of questions pertinent to each major irrational idea.



TABLE II

DISTRIBUTION OF I-I INVENTORY ITEMS  
BY IRRATIONAL IDEA CATEGORY

ELLIS' IRRATIONAL IDEA NO.	I	II	III	IV	V	VI	VII	VIII	IX	X	XI
NO. OF RELATED I-I ITEMS	12	13	13	8	13	11	12	12	9	7	12

The statements are arranged so as to discourage acquiescent set. Irrationality is signified in one half of the items by agreement and in the other half by disagreement. Subject response is recorded on a Likert-type scale. The weightings are 5, 3, 1 from the greatest degree of irrationality to the least degree of irrationality. Total test scores are derived by summing all individual item choices. Thus, the higher the scores the higher the degree of irrationality.

Zingle reports a test-retest reliability for the I-I Inventory of .80 for high school students. Content validity via the interjudge method was found to range from .75 to .85. Initial and subsequent construct validation by Zingle (1965); Conklin (1965) and Conklin, Boersma and Zingle (1967) has been extensive. The Irrational Ideas Inventory appears in full in the Appendix.

#### The Maudsley Personality Inventory

The Maudsley Personality Inventory (MPI) constructed by Eysenck



was employed as one anxiety measure in the study. The MPI contains 48 items half of which relate to neuroticism and half of which relate to extraversion-intraversion. Thus, three scores are possible: Extraversion or E Scale scores; Neuroticism or N Scale scores and Total Scale scores (N & E). A weighting of 2 is awarded any response which represents extraversion or neuroticism. A weighting of 1 is awarded any response indicative of indecision. High scores indicate high anxiety.

Eysenck (1959) reports split half and Kuder-Richardson reliability correlations in the .85 to .90 range for the Neuroticism Scale and in the .75 to .85 range for the Extraversion Scale. Test-retest reliability correlations of .81 and .83 are also reported. (p. 4) Validity studies are extensive (Eysenck, 1959) and complex. Particularly germane to the present study is the finding that scores on the N Scale correlated .77 with the Taylor Manifest Anxiety Scale.

#### The Revised Taylor Manifest Anxiety Scale

The revised form of the Taylor Manifest Anxiety Scale was a second anxiety measure employed in the current investigation (Taylor, 1953). There are 28 items in the revised edition, each of which requires a true or false response. Each response indicative of anxiety is weighted 1 point. Total test scores are derived by simple summation. High scores being indicative of high anxiety. Taylor (1953) reports test-retest reliability values of .82 and .89 for the revised form. Initial and subsequent validity studies are numerous (e.g. Taylor, 1953; Solomon, 1954; Sarason, 1960).



### The Willoughby Personality Schedule

The Willoughby Inventory constituted a third anxiety measure. The schedule purportedly indicates neurotic anxiety. It consists of 25 items, 12 of which comprise an emotional sensitivity sub-scale (ES) and 13 of which comprise an unadaptive reactions sub-scale (UAR). Thus, three scores are possible. That is, separate values are obtainable for the ES and UAR sub-tests as well as the total Willoughby. Item content consists of a description of an emotion or a behavior typical of anxious persons. The testee responds with one of four possible answers which signify the frequency with which the testee has the emotion or exhibits the behavior (e.g. "not at all") to ("practically always"). Weighting is 1 2 3 4 from "not at all" to "practically always."

The reliability and validity of the instrument rests with the work of Wolpe (1958). Wolpe has used the test extensively with his neurotic patients and gauges therapeutic success on the changes evident in pre and post therapy administrations of the Willoughby. He does report a validation study wherein differences were found between the scores obtained by non-neurotics and by neurotics (Wolpe, 1958, p. 110). "Normal" subjects were found significantly ( $p < .001$ ) less anxious than neurotic patients.



## CHAPTER IV

### FINDINGS AND CONCLUSIONS

For purposes of clarity and ease of reader interpretation each hypothesis is restated, followed by the pertinent statistical findings and appropriate conclusion.

#### HYPOTHESIS I

High school students who score high on the Irrational Ideas Inventory will score higher on the Neuroticism Scale of the Maudsley Personality Inventory than will high school students who score low on the Irrational Ideas Inventory.

#### Findings

Scores on the Neuroticism Scale of the Maudsley Personality Inventory (MPI) were tabulated for each S. Means for these scores were calculated for both the high irrational belief group and the low irrational belief group and for sex within these groupings. Table III depicts these values.

TABLE III

MEANS FOR THE HIGH AND LOW IRRATIONAL BELIEF GROUPS AND FOR SEX WITHIN GROUPS ON THE NEUROTICISM SCALE OF THE MPI

GROUP	HIGH IRRATIONAL BELIEF GROUP $\bar{X}$	LOW IRRATIONAL BELIEF GROUP $\bar{X}$
Males	31.24	23.38
Females	31.73	26.38
Totals	31.49	24.88



It can be seen that the mean for the high irrational belief group was higher than the total mean for the low irrational belief group (i.e. 31.49 as opposed to 24.88). A subsequent analysis of variance was performed to determine if the observed differences were significant. Inspection of the results of the analysis presented in Table IV reveal a significant difference does exist which exceeds the .001 probability level.

TABLE IV

SUMMARY OF ANALYSIS OF VARIANCE OF SCORES ON THE  
MPI NEUROTICISM SUBSCALE FOR ALL GROUPS

Source of	Sum of Squares	Degrees of Freedom	Mean Squares	Obtained F. Ratio	Sig.
Sex	97.25	1	97.25	1.86	NS
Group	1391.30	1	1391.30	26.57	P<.001
Interaction	50.75	1	50.75	.97	NS
Within	6493.39	124	52.37		

### Conclusion

Confirmation of Hypothesis I was obtained. Those high school students found to score high on the Irrational Ideas Inventory were found to obtain higher scores on the Neuroticism Scale of the MPI than were their low Irrational Idea counterparts.



## HYPOTHESIS II

High school students who score high on the Irrational Ideas Inventory will score higher on the TOTAL Maudsley Personality Inventory than will high school students who score low on the Irrational Ideas Inventory.

Findings

Scores for the Total Maudsley Personality Inventory (MPI) were tabulated for each S. Means for these scores were calculated for both the high irrational belief group and the low irrational belief group and for sex within these groupings. Table V depicts these values.

TABLE V

MEANS FOR THE HIGH AND LOW IRRATIONAL BELIEF GROUPS  
AND FOR SEX WITHIN GROUPS ON THE TOTAL MPI

GROUP	HIGH IRRATIONAL GROUP $\bar{X}$	LOW IRRATIONAL GROUP $\bar{X}$
Males	58.59	50.97
Females	57.82	53.85
Total	58.21	52.41

The observed difference between means for the high and low irrational belief groups (i.e. 58.21 as opposed to 52.41) were subsequently through analysis of variance found significant beyond the .001 level. Table VI presents the pertinent analysis of variance results.



TABLE VI  
SUMMARY OF ANALYSIS OF VARIANCE OF THE SCORES  
ON THE TOTAL MPI FOR ALL GROUPS

Source	ss	df	Ms	F Ratio	Sig.
Sex	35.62	1	35.62	.37	N.S.
Group	1069.30	1	1069.30	11.02	p<.001
Interaction	106.37	1	106.37	1.10	N.S.
Within	12035.31	124	97.06		

### Conclusion

Confirmation of Hypothesis II was obtained. High school students who scored high on the Irrational Ideas Inventory scored higher on the total MPI than their low scoring counterparts.

### HYPOTHESIS III

High school students who score high on the Irrational Ideas Inventory will score higher on the Revised Form of the Taylor Manifest Anxiety Scale than will high school students who score low on the Irrational Ideas Inventory.

### Findings

Scores on the Revised Taylor Manifest Anxiety Scale were tabulated for each S. Means for these scores were calculated for both the high and low irrational belief groups and for sex within these groupings. Table VII depicts these values.



TABLE VII

MEANS FOR HIGH AND LOW IRRATIONAL BELIEF GROUPS AND SEX WITHIN  
GROUP ON THE REVISED TAYLOR MANIFEST ANXIETY SCALE

GROUP	HIGH IRRATIONAL GROUP $\bar{X}$	LOW IRRATIONAL GROUP $\bar{X}$
Males	12.90	7.78
Females	13.85	7.15
Total	13.38	7.47

To determine if the observed differences between means for the high and low irrational belief groups were significant, an analysis of variance was performed. Table VIII provides a summary of the analysis of variance.

TABLE VIII

SUMMARY OF ANALYSIS OF VARIANCE OF SCORES ON THE REVISED  
TAYLOR MANIFEST ANXIETY SCALE FOR ALL GROUPS

Source	ss	df	Ms	F Ratio	Sig.
Sex	.80	1	.80	.03	N.S.
Group	113.10	1	113.10	44.72	$p < .001$
Interaction	20.06	1	20.06	.81	N.S.
Within	3086.67	124	24.89		



### Conclusion

Confirmation of Hypothesis III was obtained ( $p < .001$ ). Those high school students found to score high on the Irrational Ideas Inventory were found to obtain higher scores on the Revised Taylor Manifest Anxiety Scale than their low Irrational Ideas counterparts.

### HYPOTHESIS IV

High school students who score high on the Irrational Ideas Inventory will score higher on the Emotional Sensitivity Scale of the Willoughby Personality Schedule than will high school students who score low on the Irrational Ideas Inventory.

### Findings

Scores on the Emotional Sensitivity (ES) Scale of the Willoughby Personality Schedule were tabulated for all Ss. Means for these scores were calculated for both the high and low irrational belief groups and for sex within these groups. Table IX depicts the various means.

TABLE IX

MEANS FOR HIGH AND LOW IRRATIONAL BELIEF GROUPS AND SEX WITHIN GROUPS ON THE EMOTIONAL SENSITIVITY SCALE

GROUPS	HIGH IRRATIONAL GROUP $\bar{X}$	LOW IRRATIONAL GROUP $\bar{X}$
Males	19.93	12.41
Females	23.70	14.68
Total	21.82	13.55



In order to determine if the observed differences between means represent significant differences an analysis of variance was performed. The results of the analysis of variance is summarized in Table X.

TABLE X  
SUMMARY OF ANALYSIS OF VARIANCE OF SCORES ON THE  
EMOTIONAL SENSITIVITY SCALE FOR ALL GROUPS

Source	ss	df	Ms	F. Ratio	Sig.
Sex	290.44	1	290.44	5.46	$p < .001$
Group	2182.15	1	2182.15	41.05	$p < .001$
Interaction	17.84	1	17.84	.34	N.S.
Within	6592.00	124	53.16		

### Conclusion

Confirmation of Hypothesis IV was obtained. High school students found to score high on the Irrational Ideas Inventory were found to score higher on the Emotional Sensitivity Scale of the Willoughby Personality Schedule than low Irrational Idea high school students ( $p < .001$ ).

Also as a result of the analysis of variance females were found to obtain higher ( $p < .001$ ) Emotional Sensitivity scores than males. No other index of anxiety employed in the study revealed higher anxiety to be related to sex. While no such difference was hypothesized the obtained results do confirm Wolpe's (1958, p. 107) contention that there is an "anxious basis" to emotional sensitivity. The higher emotional



sensitivity of female may conceivably affect the course of therapy. Therefore, more exploratory work in this regard could be productive.

#### HYPOTHESIS V

High school students who score higher on the Irrational Ideas Inventory will score higher on the Unadaptive Anxiety Reactions Scale of the Willoughby Personality Schedule than will high school students who score low on the Irrational Ideas Inventory.

#### Findings

Scores on the Unadaptive Anxiety Reactions Scale of the Willoughby were tabulated for all Ss. Means for these scores were tabulated for both the high and low irrational belief groups and for sex within groups. The relevant means are presented in Table XI.

TABLE XI

MEANS FOR HIGH AND LOW IRRATIONAL BELIEF GROUPS AND SEX WITHIN GROUPS ON THE UNADAPTIVE ANXIETY REACTIONS SCALE

GROUPS	HIGH IRRATIONAL GROUP $\bar{X}$	LOW IRRATIONAL GROUP $\bar{X}$
Males	22.07	14.50
Females	22.45	15.79
Total	22.26	15.15



The observed differences in means (22.26 as opposed to 15.15) were found highly significant ( $p < .001$ ) upon analysis of variance. Table XII below provides the analysis of variance summary.

TABLE XII

SUMMARY OF ANALYSIS OF VARIANCE OF SCORES ON THE UNADAPTIVE  
ANXIETY REACTIONS SCALE FOR ALL GROUPS

Source	ss	df	Ms	F Ratio	Sig.
Sex	22.51	1	22.51	.37	N.S.
Group	1614.04	1	1614.04	26.82	$p < .001$
Interaction	6.56	1	6.56	.11	N.S.
Within	7463.61	124	60.19		

### Conclusion

Confirmation of Hypothesis V was obtained ( $p < .001$ ). High school students found to score high on the Irrational Ideas Inventory score higher on the Unadaptive Anxiety Reactions Scale than low Irrational Idea high school students.

### HYPOTHESIS VI

High school students who score high on the Irrational Ideas Inventory will score higher on the TOTAL Willoughby Personality Schedule than will high school students who score low on the Irrational Ideas Inventory.



## Findings

Scores on the Willoughby Personality Schedule were tabulated for all Ss. Means for both the high and low irrational belief groups and for sex within groups were calculated. Table XIII provides the specific means obtained.

TABLE XIII

MEANS FOR HIGH AND LOW IRRATIONAL BELIEF GROUPS AND SEX WITHIN GROUPS ON THE WILLOUGHBY PERSONALITY SCHEDULE FOR ALL GROUPS

GROUP	HIGH IRRATIONAL GROUP $\bar{X}$	LOW IRRATIONAL GROUP $\bar{X}$
Males	42.00	26.19
Females	46.15	30.47
Total	44.08	28.33

To determine if the observed differences between means (i.e. 44.08 as opposed to 28.33) were significant, an analysis of variance was performed. The results of the analysis of variance are summarized in Table XIV.



TABLE XIV

SUMMARY OF ANALYSIS OF VARIANCE OF SCORES ON THE WILLOUGHBY  
PERSONALITY SCHEDULE FOR ALL GROUPS

Source	ss	df	Ms	F Ratio	Sig.
Sex	474.55	1	474.55	2.63	N.S.
Group	7549.59	1	7549.59	41.86	$p < .001$
Interaction	2.87	1	2.87	.02	N.S.
Within	22363.37	124	180.35		

Conclusions

Confirmation of Hypothesis VI was obtained ( $p < .001$ ). High school students who possess a high score on the Irrational Ideas Inventory, score higher on the Willoughby Personality Schedule than students who score low on the Irrational Ideas Inventory.



## CHAPTER V

### DISCUSSION AND IMPLICATIONS

#### DISCUSSION

The results of this investigation are definitely supportive of the general underlying hypothesis. Irrationality was found associated with anxiety on the basis of 3 indices; all obtained relationships of which exceeded chance expectation beyond the .001 level.

Therefore, one may conclude that high school students who hold a high number of irrational ideas do demonstrate more anxiety than students who hold fewer irrational ideas. Moreover, it appears from the theory considered, that irrational ideas are embraced prior to and are causal of anxiety. However, such a notion is merely a suggestion and not a finding of the study. What has been demonstrated is that there is a strong association between irrational ideas and anxiety.

#### IMPLICATIONS

##### Implications for Practice

Essentially, what the results of the study mean is that the rational-emotive therapy of Ellis should be more widely applied. The anxiety which accompanies the embracing of irrational ideas is difficult, at present, for the high school counsellor to combat. However, the intervention of the counsellor in the client's unquestioning acceptance of irrational ideas is entirely possible.

In addition, identification of those students whose lack of



achievement is due to the debilitating relationship between irrationality and anxiety becomes highly reliable through the use of the I-I Inventory. Upon completion of a specific planned program of therapy a re-test would provide an objective evaluation of student change and counselling success. The possible immediate benefits to the student in the learning environment justify the recommendation that practicing school counsellors commence further evaluation of Ellis' approach to therapy.

### Implications for Research

Further research building upon the findings of this study would be productive in many areas. Foremost in priority, would be a larger scale study to determine if, in fact, irrational ideas precede and are causal of anxiety. Such an investigation might take many forms. One design that occurs to the author is that high irrational belief subjects be identified. Then such persons could be confronted individually with ideas counter to their specific irrational ideas. Anxiety measures could be taken at numerous intervals during the confrontation or course of therapy. The resultant pattern of the intensity of anxiety during this procedure would confirm or disconfirm the contention that irrationality leads to anxiety.

Research could also profitably be carried out to determine which clusters of irrational beliefs or I-I items are most indicative (conductive?) of anxiety. This latter suggestion would lead to obvious economical advantages to the counsellor in "diagnosis" and therapy.



The major research implication is that follow-up work should be done to determine if a cognitive-verbal approach to countering irrational beliefs will decrease anxiety.







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That \_\_\_\_\_

Respectfully, \_\_\_\_\_

cc: \_\_\_\_\_

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\_\_\_\_\_

\_\_\_\_\_

A P P E N D I X

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## I-I INVENTORY

Name \_\_\_\_\_ School \_\_\_\_\_

Birthdate \_\_\_\_\_ Grade \_\_\_\_\_ Age \_\_\_\_\_

### To The Student

This is a study of events and experiences in everyday life. You are asked to cooperate seriously and carefully in marking the items in this booklet. This is not an intelligence test. The best answer to each statement is your own impression - there are no right or wrong answers.

Your answers will be treated with the strictest confidence and in no case will they be used to cause you any embarrassment.

### INSTRUCTIONS FOR MARKING ANSWERS

For each statement, decide whether your answer is "Yes" or "No." If your answer is a definite "Yes" put an (X) on the end of the line where the "Yes" is typed. If your answer is a definite "No" put an (X) on the end of the line nearest the "No." If you are uncertain as to how you feel about the statement mark an (X) on the middle of the line. If the true answer is somewhere between the yes and no, put the (X) where it is most true for you.

Think carefully, but do not spend too much time on any one question. Let your own personal experience or opinion guide you to choose the answer you feel about each statement.

There is no time limit.

Please mark every item.



- |  | Yes     | ?       | No      |
|--|---------|---------|---------|
| 1. I would rather play by myself than with someone.                                      | !-----! | !-----! | !-----! |
| 2. I prefer to get things done very quickly rather than being slow and sure in movement. | Yes     | ?       | No      |
|  | !-----! | !-----! | !-----! |
| 3. All human lives are equally sacred.   | Yes     | ?       | No      |
|  | !-----! | !-----! | !-----! |
| 4. I usually object when a person steps in front of me in a line of people.              | Yes     | ?       | No      |
|  | !-----! | !-----! | !-----! |
| 5. I have sometimes had a nickname which I didn't like very well.                        | Yes     | ?       | No      |
|  | !-----! | !-----! | !-----! |
| 6. I am afraid in the dark.  | Yes     | ?       | No      |
|  | !-----! | !-----! | !-----! |
| 7. I prefer to accept suggestions rather than work them out for myself.                  | Yes     | ?       | No      |
|  | !-----! | !-----! | !-----! |
| 8. It is better to tell your troubles to your friends than to keep them to yourself.     | Yes     | ?       | No      |
|  | !-----! | !-----! | !-----! |
| 9. Men are created equal in mental capacity.   | Yes     | ?       | No      |
|  | !-----! | !-----! | !-----! |
| 10. It is necessary to be especially friendly to new students.                           | Yes     | ?       | No      |
|  | !-----! | !-----! | !-----! |
| 11. School promotions should be for intellectual merit alone.                            | Yes     | ?       | No      |
|  | !-----! | !-----! | !-----! |
| 12. I like to be praised.  | Yes     | ?       | No      |
|  | !-----! | !-----! | !-----! |
| 13. It is foolish to let others see your emotions.                                       | Yes     | ?       | No      |
|  | !-----! | !-----! | !-----! |
| 14. To spare the rod is to spoil the child.  | Yes     | ?       | No      |
|  | !-----! | !-----! | !-----! |
| 15. I worry about little things.   | Yes     | ?       | No      |
|  | !-----! | !-----! | !-----! |
| 16. There are people to try to do me harm or hurt me.                                    | Yes     | ?       | No      |
|  | !-----! | !-----! | !-----! |
| 17. I sometimes worry about my health.   | Yes     | ?       | No      |
|  | !-----! | !-----! | !-----! |
| 18. Students should not be required to take courses for which they see no use.           | Yes     | ?       | No      |
|  | !-----! | !-----! | !-----! |
| 19. I like to bear responsibilities alone.   | Yes     | ?       | No      |
|  | !-----! | !-----! | !-----! |



- |     |   |         |         |         |
|-----|---|---------|---------|---------|
| 20. | It is a big aid to health to say each morning "Day by day in every way I am getting better and better." | Yes     | ?       | No      |
|     |   | !-----! | !-----! | !-----! |
| 21. | Helping others is the very basis of life.   | Yes     | ?       | No      |
|     |   | !-----! | !-----! | !-----! |
| 22. | Firm convictions make for stength of character.   | Yes     | ?       | No      |
|     |   | !-----! | !-----! | !-----! |
| 23. | I feel that it is important to get on well with my teachers and principal.                              | Yes     | ?       | No      |
|     |   | !-----! | !-----! | !-----! |
| 24. | Will power is the most important trait.   | Yes     | ?       | No      |
|     |   | !-----! | !-----! | !-----! |
| 25. | The "insanity plea" as a defence in murder trials is undesirable.                                       | Yes     | ?       | No      |
|     |   | !-----! | !-----! | !-----! |
| 26. | I must learn to "keep my head" when things go wrong.  | Yes     | ?       | No      |
|     |   | !-----! | !-----! | !-----! |
| 27. | I think that I am getting a square deal in life.  | Yes     | ?       | No      |
|     |   | !-----! | !-----! | !-----! |
| 28. | It is useless to worry about things that cannot be changed or corrected.                                | Yes     | ?       | No      |
|     |   | !-----! | !-----! | !-----! |
| 29. | It is better to live a coward than die a hero.  | Yes     | ?       | No      |
|     |   | !-----! | !-----! | !-----! |
| 30. | I prefer to have someone with me when I receive bad news.   | Yes     | ?       | No      |
|     |   | !-----! | !-----! | !-----! |
| 31. | Some children are dull and unimaginative because of defective training in home and school.              | Yes     | ?       | No      |
|     |   | !-----! | !-----! | !-----! |
| 32. | Sympathy is the most divine passion of the human heart.   | Yes     | ?       | No      |
|     |   | !-----! | !-----! | !-----! |
| 33. | The good person is usually right.   | Yes     | ?       | No      |
|     |   | !-----! | !-----! | !-----! |
| 34. | Sometimes I feel that no one loves me.  | Yes     | ?       | No      |
|     |   | !-----! | !-----! | !-----! |
| 35. | I find it difficult to take criticism without feeling hurt.   | Yes     | ?       | No      |
|     |   | !-----! | !-----! | !-----! |
| 36. | We are justified in refusing to forgive our enemies.  | Yes     | ?       | No      |
|     |   | !-----! | !-----! | !-----! |
| 37. | It is all right to create a scene in order to get one's own way.  | Yes     | ?       | No      |
|     |   | !-----! | !-----! | !-----! |



- |   |                                 |
|---|---------------------------------|
| 38. Riches are a sure basis for happiness in the home.  | Yes    ?    No<br>!-----!-----! |
| 39. I worry over possible misfortunes.  | Yes    ?    No<br>!-----!-----! |
| 40. I have sometimes crossed the street to avoid meeting some person.                                       | Yes    ?    No<br>!-----!-----! |
| 41. I prefer to be alone.   | Yes    ?    No<br>!-----!-----! |
| 42. The boy who regularly stands at the foot of his class is often a great success after leaving school.    | Yes    ?    No<br>!-----!-----! |
| 43. I get disturbed when neighbours are very harsh with their little children.                              | Yes    ?    No<br>!-----!-----! |
| 44. I find it easy to set standards of "right" and "wrong".   | Yes    ?    No<br>!-----!-----! |
| 45. Jeers humiliate me even when I know that I am right.  | Yes    ?    No<br>!-----!-----! |
| 46. Admiration gratifies me more than achievement.  | Yes    ?    No<br>!-----!-----! |
| 47. Punishment is a sure cure for crime.  | Yes    ?    No<br>!-----!-----! |
| 48. I frequently feel self-conscious about my appearance.   | Yes    ?    No<br>!-----!-----! |
| 49. My feelings are hurt easily.  | Yes    ?    No<br>!-----!-----! |
| 50. Sometimes I am troubled by thoughts of death.   | Yes    ?    No<br>!-----!-----! |
| 51. If I were able to do so I would rather attend some other school than the one I am attending now.        | Yes    ?    No<br>!-----!-----! |
| 52. My folks are not reasonable to me when they demand obedience.   | Yes    ?    No<br>!-----!-----! |
| 53. Habits of pre-school years carried over into adult life may help determine our usefulness.              | Yes    ?    No<br>!-----!-----! |
| 54. I get annoyed when people are impolite to me.   | Yes    ?    No<br>!-----!-----! |
| 55. If one needs something badly enough and cannot buy it, there are times when it is all right to take it. | Yes    ?    No<br>!-----!-----! |



- |   | Yes     | ?       | No      |
|---|---------|---------|---------|
| 56. I want people to like me better.  | !-----! | !-----! | !-----! |
| 57. Too much importance is attached to the possession of money and good clothes in this school. | Yes     | ?       | No      |
|   | !-----! | !-----! | !-----! |
| 58. Criminals are really sick and should be treated like sick persons.                          | Yes     | ?       | No      |
|   | !-----! | !-----! | !-----! |
| 59. I get terribly upset and miserable when things are not the way I would like them to be.     | Yes     | ?       | No      |
|   | !-----! | !-----! | !-----! |
| 60. This school provides adequate opportunity for me to meet and make friends.                  | Yes     | ?       | No      |
|   | !-----! | !-----! | !-----! |
| 61. I worry about eternity.   | Yes     | ?       | No      |
|   | !-----! | !-----! | !-----! |
| 62. I need to learn how to keep from being too aggressive.                                      | Yes     | ?       | No      |
|   | !-----! | !-----! | !-----! |
| 63. I would like school better if teachers were not so strict.                                  | Yes     | ?       | No      |
|   | !-----! | !-----! | !-----! |
| 64. Children outgrow their bad habits.  | Yes     | ?       | No      |
|   | !-----! | !-----! | !-----! |
| 65. I get upset when I hear of people (not relatives or close friends) who are very ill.        | Yes     | ?       | No      |
|   | !-----! | !-----! | !-----! |
| 66. It is alright to cheat in a game when you will get caught.                                  | Yes     | ?       | No      |
|   | !-----! | !-----! | !-----! |
| 67. My folks do not take time to become acquainted with my problems.                            | Yes     | ?       | No      |
|   | !-----! | !-----! | !-----! |
| 68. This school places too much emphasis upon grades.   | Yes     | ?       | No      |
|   | !-----! | !-----! | !-----! |
| 69. The members of my family seem to criticize me a lot.  | Yes     | ?       | No      |
|   | !-----! | !-----! | !-----! |
| 70. I get very angry when I miss a bus which passes only a few feet away from me.               | Yes     | ?       | No      |
|   | !-----! | !-----! | !-----! |
| 71. I find that this school tends to make me unhappy.   | Yes     | ?       | No      |
|   | !-----! | !-----! | !-----! |
| 72. I can walk past a grave yard alone at night without feeling uneasy.                         | Yes     | ?       | No      |
|   | !-----! | !-----! | !-----! |



- |   |                                  |
|---|----------------------------------|
| 73. I usually like to be somewhere else than at home.   | Yes    ?    No<br>!-----!-----!- |
| 74. I enjoy being alone more than being with my classmates.   | Yes    ?    No<br>!-----!-----!- |
| 75. A person who will not stand up for his rights as a teen-ager will probably not be able to stand up for his rights as an adult.          | Yes    ?    No<br>!-----!-----!- |
| 76. Other people's problems frequently cause me great concern.  | Yes    ?    No<br>!-----!-----!- |
| 77. Crime never pays.   | Yes    ?    No<br>!-----!-----!- |
| 78. I wish that more affection were shown by more members of my family.   | Yes    ?    No<br>!-----!-----!- |
| 79. I worry about tests.  | Yes    ?    No<br>!-----!-----!- |
| 80. When I see movies about daring robberies I usually hope the robber won't get caught in the end.   | Yes    ?    No<br>!-----!-----!- |
| 81. When things are not the way I would like them to be, and it is not in my power to change them, I calmly accept things the way they are. | Yes    ?    No<br>!-----!-----!- |
| 82. I feel that life has a great deal more happiness than trouble.  | Yes    ?    No<br>!-----!-----!- |
| 83. I can face a difficult task without worry.  | Yes    ?    No<br>!-----!-----!- |
| 84. I avoid inviting others to my home because it is not as nice as theirs.   | Yes    ?    No<br>!-----!-----!- |
| 85. I prefer to be independent of others in making decisions.   | Yes    ?    No<br>!-----!-----!- |
| 86. A juvenile delinquent will almost surely be a criminal when he becomes an adult.  | Yes    ?    No<br>!-----!-----!- |
| 87. He that loses his conscience has nothing left that is worth keeping.  | Yes    ?    No<br>!-----!-----!- |
| 88. It is better to have friends than fame.   | Yes    ?    No<br>!-----!-----!- |
| 89. My folks appear to doubt whether I will be successful.  | Yes    ?    No<br>!-----!-----!- |



- |  |  |
|--|--|
| 90. I feel guilty when I misbehave and I expect to be punished.  | Yes    ?    No<br>!-----!-----!                                    |
| 91. Sticks and stones will break my bones but words will never hurt me.  | Yes    ?    No<br>!-----!-----!<br>Yes    ?    No<br>!-----!-----! |
| 92. I tend to worry over possible troubles.  | !-----!-----!  |
| 93. Many of my classmates are so unkind or unfriendly that I avoid them.   | Yes    ?    No<br>!-----!-----!                                    |
| 94. I tend to look to others for the kind of behavior they approve as right and wrong.   | Yes    ?    No<br>!-----!-----!                                    |
| 95. If a child is brought up in a home where there is much quarreling and unhappiness he will probably be unhappy in his own marriage. | Yes    ?    No<br>!-----!-----!                                    |
| 96. People who unjustly criticize the government should be put in jail.  | Yes    ?    No<br>!-----!-----!                                    |
| 97. When a friend ignores me I become extremely upset.   | Yes    ?    No<br>!-----!-----!                                    |
| 98. If a person tries hard enough, he can be first in anything.  | Yes    ?    No<br>!-----!-----!                                    |
| 99. The police may sometimes be right in giving a man the "third degree" to make him talk.   | Yes    ?    No<br>!-----!-----!<br>Yes    ?    No<br>!-----!-----! |
| 100. It hurts me when my friends are unkind.   | !-----!-----!  |
| 101. I worry about the possibility of an atomic attack by some foreign power.  | Yes    ?    No<br>!-----!-----!                                    |
| 102. I often spend more time in trying to think of ways of getting out of something than it would take me to do it.                    | Yes    ?    No<br>!-----!-----!                                    |
| 103. I feel my parents have dominated me too much.   | Yes    ?    No<br>!-----!-----!<br>Yes    ?    No<br>!-----!-----! |
| 104. I know there is a God.  | !-----!-----!  |
| 105. I find it very upsetting when people who are important to me are indifferent to me.   | Yes    ?    No<br>!-----!-----!                                    |
| 106. When a person is no longer interested in doing his best he is done for.   | Yes    ?    No<br>!-----!-----!                                    |



- |      |  |         |         |         |
|------|--|---------|---------|---------|
| 107. | The best way to teach a child right from wrong is to spank him, when he is wrong.  | Yes     | ?       | No      |
|      |  | !-----! | !-----! | !-----! |
| 108. | It is impossible at any given time to change one's emotions.   | Yes     | ?       | No      |
|      |  | !-----! | !-----! | !-----! |
| 109. | I frequently do things that I am afraid of doing in order to prove to myself that there is nothing intrinsically frightful about these things. | Yes     | ?       | No      |
|      |  | !-----! | !-----! | !-----! |
| 110. | I am happiest when I am sitting around doing little or nothing.  | Yes     | ?       | No      |
|      |  | !-----! | !-----! | !-----! |
| 111. | Cooperation is better than competition.  | Yes     | ?       | No      |
|      |  | !-----! | !-----! | !-----! |
| 112. | It is sinful to doubt the Bible.   | Yes     | ?       | No      |
|      |  | !-----! | !-----! | !-----! |
| 113. | It makes me uncomfortable to be different.   | Yes     | ?       | No      |
|      |  | !-----! | !-----! | !-----! |
| 114. | People who do not achieve competency in at least one area are worthless.   | Yes     | ?       | No      |
|      |  | !-----! | !-----! | !-----! |
| 115. | People who perform acts which are immoral do so because they are too stupid or too ignorant to refrain from doing so.                          | Yes     | ?       | No      |
|      |  | !-----! | !-----! | !-----! |
| 116. | Unhappiness largely comes from within and is largely created by the unhappy person himself.  | Yes     | ?       | No      |
|      |  | !-----! | !-----! | !-----! |
| 117. | I am naturally a lazy person.  | Yes     | ?       | No      |
|      |  | !-----! | !-----! | !-----! |
| 118. | It is better to take risks and to commit possible errors, than to seek unnecessary aid of others.  | Yes     | ?       | No      |
|      |  | !-----! | !-----! | !-----! |
| 119. | Persons who are punished for their "sins" usually change for the better.   | Yes     | ?       | No      |
|      |  | !-----! | !-----! | !-----! |
| 120. | It would be terrible or catastrophic to be a cripple.  | Yes     | ?       | No      |
|      |  | !-----! | !-----! | !-----! |
| 121. | I follow a definite study schedule during the school term.   | Yes     | ?       | No      |
|      |  | !-----! | !-----! | !-----! |
| 122. | Most people can be truly outstanding in at least one area of their work.   | Yes     | ?       | No      |
|      |  | !-----! | !-----! | !-----! |

















**B29899**